

Claims

- [c1] A method for use in a vehicle comprising:
sensing a current position of a trailer relative to the vehicle;
determining a vehicle steering wheel angle; determining a predicted position of the trailer based on the current position and the steering wheel angle; and
displaying within the vehicle the current position and the predicted position of the trailer relative to the vehicle.
- [c2] A method as recited in claim 1 wherein sensing a current position comprises sensing the current position in response to a camera.
- [c3] A method as recited in claim 1 wherein sensing a current position comprises sensing the current position in response to a reverse aid system.
- [c4] A method as recited in claim 1 wherein sensing a current position comprises sensing the current position in response to a hitch sensor.
- [c5] A method as recited in claim 1 further comprising applying brake-steer to the trailer to reduce the turning radius of the trailer and vehicle.

- [c6] A method as recited in claim 1 further comprising applying brake-steer to the trailer and vehicle to reduce the turning radius of the trailer and vehicle.
- [c7] A method as recited in claim 1 further comprising applying brake-steer to the vehicle to reduce the turning radius of the trailer and vehicle.
- [c8] A method as recited in claim 7 wherein applying brake-steer comprises applying at least one brake at a first wheel to reduce a vehicle turning radius.
- [c9] A method as recited in claim 7 wherein applying brake-steer comprises applying an increased drive torque to a second wheel relative to a first wheel.
- [c10] A method as recited in claim 7 applying brake-steer comprises increasing a normal load on the vehicle.
- [c11] A method as recited in claim 1 wherein determining a predicted position comprises determining a vehicle trailer interference and displaying the interference.
- [c12] A method of controlling a vehicle having a trailer comprising:
 - generating a reverse direction signal corresponding to a reverse direction of the vehicle;
 - sensing a current position of a trailer relative to the ve-

hicle;

determining a vehicle steering wheel angle;

determining a predicted position of the trailer based on the current position of the trailer and the steering wheel angle; and

displaying the current position and the predicted position within the vehicle in response to the reverse direction.

[c13] A method as recited in claim 12 wherein sensing a current position comprises sensing 10 a current position in response to a camera.

[c14] A method as recited in claim 12 wherein sensing a current position comprises sensing a current position in response to a reverse aid system.

[c15] A method as recited in claim 12 wherein sensing a current position comprises sensing a current position in response to a hitch sensor.

[c16] A method as recited in claim 12 wherein generating a reverse direction signal comprises generating a reverse direction from a shift lever.

[c17] A method as recited in claim 12 wherein generating a reverse direction signal comprises generating a reverse direction from a push 25 button.

- [c18] A method as recited in claim 12 wherein generating a reverse direction signal comprises generating a reverse direction from a transmission controller.
- [c19] A method as recited in claim 12 wherein generating a reverse direction signal comprises generating a reverse direction from a wheel speed sensor.
- [c20] A method as recited in claim 12 wherein generating a vehicle steering angle comprises generating a steering angle in response to a steering angle sensor.
- [c21] A system for a vehicle coupled to a trailer comprising:
a position sensor generating a position signal corresponding to a trailer position signal; means to generate a reverse direction signal corresponding to a reverse direction of the vehicle;
a display;
a steering wheel angle sensor; and
a controller coupled to the trailer position signal display, and steering wheel angle sensor, said controller displaying a predicted path of the trailer in response to the position signal.
- [c22] A system as recited in claim 21 wherein means to generate a reverse direction signal comprises a shift lever.

- [c23] A system as recited in claim 21 wherein means to generate a reverse direction signal comprises a push button.
- [c24] A system as recited in claim 21 wherein means to generate a reverse direction signal comprises a transmission controller.
- [c25] A system as recited in claim 21 wherein means to generate a reverse direction signal comprises a wheel speed sensor.
- [c26] A system as recited in claim 21 wherein the position sensor comprises a hitch sensor.
- [c27] A system as recited in claim 21 wherein the position sensor comprises a reverse aid sensor.
- [c28] A system as recited in claim 21 wherein the reverse aid sensor comprises an ultrasonic sensor.
- [c29] A system as recited in claim 21 wherein the position sensor comprises a camera.
- [c30] A system as recited in claim 21 further comprising input device said controller.